



The Halifax Amateur Radio Club

REFLECTOR

PO BOX 663
HALIFAX NS
B3J 2T3

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club address: www.halifax-arc.org



Happy 2003



HARC; Club Station phone number - 490-6421 See the HARC Web site at:
<http://www.halifax-arc.org>

Our executive and committees.

<u>Position Name & Call Sign</u>	<u>Phone #</u>	<u>E-Mail</u>
President - Dick Grantham, VE1AI	434-8046	ve1ai@rac.ca
First V.P. - Murray MacDonald, VE1MMD	876-0661	ve1mmd@rac.ca
2nd V.P. - Trevor Bast, KA8ZUO/VE1	431-6261	ka8zuo@rac.ca
Secretary - Wayne Ernst, VE1GPK	820-2132	ve1gpk@rac.ca
Treasurer - Jeremy Fowler, VE1JHF	835-6651	ve1jhf@rac.ca
Member at Large - Howard Dickson, VE1DHD	823-2024	ve1dhd@rac.ca
Club Station Mgr. - John Goodwin, VE1CDD	865-5731	ve1cdd@rac.ca
Past President - Bill Elliott, VE1MR	865-8567	ve1mr@rac.ca

Committees/Offices/Prime Contacts

Public Relations: Wayne Harasimovitch, VE1WPH	ve1wph@rac.ca
IPARN and Brit Fader Memorial QSL Bureau Manager - Bob Burns, VE1VCK	865-9414 ve1vck@rac.ca
EMO Coordinator - Dave George, VE1AJP	466-8723 dgeorge@is.dal.ca
Reflector editor - Lynn Bowser, VE1ENT	865-8567 ve1ent@rac.ca
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Assistant - John Goodwin, VE1CDD	865-5731 ve1cdd@rac.ca
EMO Trailer Assembly coord - David Musgrave, VE1EDA	435-4333 ve1eda@rac.ca
Flea market Chairman - Dave Nimmo, VE1NN	dnimmo@accesswave.ca
Field Day coordinator - John Goodwin, VE1CDD	865-5731 ve1cdd@rac.ca
RAC Asst Director - Wayne Marchand, VE1WJM,	860-1580 ve1wjm@rac.ca
NSARA Director - Barry Diggins, VE1TRI	861-3719 ve1tri@rac.ca
Frequency coordinator for Nova Scotia - Bev Reynolds, VE1TL	

The **General Meeting** of the Halifax Amateur Radio Club will take place Wednesday, January 15, 2003 at 1930 hours (7:30 PM), at the former Bloomfield School building (corner of Almon and Agricola streets). The meeting will be held in the Multi-Purpose Room. Guests are welcome.

NOTICE OF MOTION

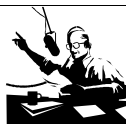
There will be a motion to approve the year 2003 budget of the Halifax Amateur Radio to be voted on at the January general meeting.

Attention new Amateurs

Any new amateurs obtaining their call-signs please let Tom, VE1GTC, know by phone at 477 7081 or e-mail - ve1gtc@rac.ca

The HARC Reflector is also available on the web (a little after the paper copy) courtesy of Rob Ewert, VE1KS, by connecting to www.halifax-arc.org

Take-15 Net Controllers



NOTE: There have been some changes.

This will be the rotation.

If you cannot take the net on your particular evening get in touch with one of the others and trade places with them. If I have left any one off the list, or you want to join, please let Bill Elliott, VE1MR, know.

Jan. 12	Larry	VA1LW	Feb. 9	Charles	VE1MCR
Jan. 19	Dave	VE1EDA	Feb. 16	Tom	VE1GTC
Jan. 26	Darryl	VE1DOH	Feb. 23	Doug	VE1LDL
Feb. 2	Herb	VE1HX			

GENERAL INFORMATION

TAKE-15 NET:

Sunday evenings at 8:30 PM on
VE1PSR - 147.270 MHz +

CLUB REPEATERS:

VE1PSR - 147.270 MHz +
VE1HNS - 146.940 MHz -

PACKET:

VE1NSD - 145.050 MHz LAN NODE
VE1BBS - Local packet BBS

Coming Events

Bill, VE9WW started a practice CW net on Monday evenings at 9:30, frequency 3.715. Call in at any speed and he will try to match it. He asks however, please keep the speed down so more participants will be able to copy. Net call CWPVN.

Amateur Radio Basic course began Thursday, Oct.3. Contact Tom Caithness, VE1GTC, for information or to volunteer help.

Saturdays - **CW classes** at the Club Station conducted by John, VE1DD

Can You Lend A Hand!

"We need Hams at the Club Station to lend a hand in demonstrating our hobby.

If you can spare a little time now and then, helping out, please give me a call or e-mail."

John Goodwin 865-5731
ve1cdd@rac.ca

February - 'Hamateur' breakfast ...

What are you doing October 7, 8, 9, 2003?

Let's take advantage of a free booth to publicize local amateur radio, RAC and the NSARA at the Trade Show which will be part of APCO (Association of Professional Communications Officers) Conference.

Contact Dave George, VE1AJP to volunteer to help out at this.

DOWNEAST FLEAMARKET

SAT 07 June 2003 at 10:00 AM finally out from under the Apple Blossom!

MS Bike Tour - August 9, 10, 2003

HARC yearly membership dues are
Full = \$25

Associate = \$15

Family (2 members) = \$35 + \$10 for each additional family member at same address (only 1 newsletter)

MID WINTER AMATEUR BREAKFAST

When: 09:00 AM SATURDAY 22-FEB 2003

Where: HALIFAX STEAK & STEIN
corner Robie & Young Streets, Halifax

Reservations not required, but contact VE1NN, David, with intentions and rough numbers in order that we set up enough tables.
E-mail to dnimmo@accesswave.ca
or phone (902)-462-3945

Regular Steak & Stein breakfast menu in effect, wide variety of choices at reasonable prices...individual bills will be provided



NOTE: New Steak & Stein policy for large group reservations is to add 17% gratuity to all bills. As regular customers however, they have agreed to waive this policy for us. I have assured them, contrary to rumours, that the hams are decent tippers!

David, VE1NN

P.S We will provide piper(s) to allow VIPs to make a "grand entrance" as we did last year



Photos of the new VE1WN repeater may be view at:

<http://45094695.home.icq.com/VE1WN.html>

73 de Hal, VE1LV

REMINDER

Have you changed your address?
Got a new call sign?

We need to know your correct address to get the newsletter to you. Please inform Tom Caithness, VE1GTC of any address changes.

Also please send your change of address to The Brit Fader

Memorial QSL Bureau

P.O. Box 8895

Halifax, N.S. B3K 5M5

Puzzler - Do You Know?

When radio began there were no rules or regulations. This resulted in interference between ship stations, coast stations, naval stations and amateurs. To resolve this the first band allocations were issued. What frequencies were then given to amateurs?



FREE online classifieds

Submit your classified ad in the HARC Swapshop. Once your ad has been posted you can come back at any time and modify or delete your posting as necessary. We hope you enjoy the new HARC Swapshop and will come back often. If so, please spread the word about these.

Make a note of the ad number and your password for your ad for future reference. You will need them if you ever want to modify or delete your classified ad.

Brit Fader Scholarship Fund Trustees Slate for the year 2002-2003.

Paul Radford, VE1ARH
Jeremy Fowler, VE1JHF
Lynn Bowser, VE1ENT
Bill Elliott, VE1MR
Bob Burns, VE1VCK
Bob Swinwood, VE1PQ

Note: Appointment is by the executive of the HARC as specified in the documents which established this trust fund.

Half the trustees are continuing; half are new appointees.

PRESIDENT'S REPORT

JANUARY 2003

Happy New Year!!

to everyone and I hope you all enjoyed the Holiday Season.



A new year signifies a new beginning and this is also, the 70th Anniversary year of the Halifax Amateur Radio Club. This is quite an achievement. With the new year I would like to see this be a year of participation and activity for every member of our club. Become involved, volunteer, and participate. The more you contribute to your club the more you will enjoy your membership. Invite someone who hasn't attended recently to join you at the next meeting, offer to drive someone who has no transportation, start a new activity ... we are going to actively solicit ideas for projects and events.

We are off to a great start with a versatile executive, supported by our past president, Bill, VE1MR, and an excellent slate of committee directors most of whom are continuing the excellent jobs they performed last year.

On a personal note, for those who do not know Dick Grantham, VE1AI, I offer this brief overview of my personal history.

I was first licensed as VE1AI in January of 1960. I am very active on the air, mostly on HF. I am a DXer, a Contester, and as well I like to rag chew on the HF bands... I should also add that this is mostly done on CW. I am on the DXCC honour roll with 342 countries confirmed. I am a member of RAC, and I also support ARRL. I am a strong believer of our public service roll and strongly encourage our work in every aspect of this part of our hobby. The HARC has one of the BEST records of public support of any of the clubs in Canada I have been president of HARC twice before, the first time in 1965. During the 1960's I was annual Field Day chairman. I am an Electrical Engineer and have worked in all parts of the radio spectrum from VLF to Satellite. I have now been retired for 2 years, having worked at DOC (Industry Canada), MT&T, and also R & S Electronics. I am looking forward to a GREAT year for the HARC and I think we are off to a good start as already plans are being formulated for the Flea Market to be held on June 7th, and also for Field Day at the end of June. In summary for 2003 - Get in there and pitch in, the more you do, the more we accomplish.

'73 Dick Grantham, VE1AI

From the ARRL Letter, Vol. 21, No. 47,

The first week in December 2002 a **new all-ham** all male **crew** settled **on board the international space station**

The Expedition 6 crew--Commander Ken Bowersox, KD5JBP; Flight Engineer Nikolai Budarin, RV3FB, and NASA ISS Science Officer Don Pettit, KD5MDT--lifted off November 23 on its four-month scientific mission.

ARISS <<http://ariss.gsfc.nasa.gov/>> is an international project with US participation by NASA, ARRL and AMSAT.

From the ARRL Letter, Vol. 22, No. 01

ARISS

Audio and video (Quicktime) clips of the Adler Planetarium ARISS contact are available via the Adler Planetarium Web site

<http://www.adlerplanetarium.org/education/events/iss/>

On December 31, 15 Scouts at the 20th World Scout Jamboree

<http://www.worldscout.pacific.net.th/>

in Thailand spoke with Expedition 6 crew member Don Pettit, KD5MDT, via special event station E20AJ. Among other questions, the Scouts asked Pettit if he wanted his own kids to grow up to become astronauts, how the crew members bathe in space, and how the lack of gravity affects the human body.

Also on December 31, Pettit spoke with students at the Rene Mure school in Commelle-Vernay, France. ARISS International Vice Chairman Gaston Bertels, ON4WF, said some 60 schoolchildren and their parents assisted in the contact. The French youngsters wanted to know if Pettit believed in extra-terrestrial life, whether the crew could feel the speed of the ISS through space, and if microgravity made it difficult for crew members to find their way in the space station.

Net Controllers

We are in need of more Take-15 net controllers. We have lost 2 people from the list and it would be nice to replace them. The more people doing this simple task will spread the load out and each would only have a turn every few months. The net is each Sunday evening at 8:30 PM on VE1PSR and usually only lasts up to ½ hour, occasionally going slightly longer but usually shorter. Consider this task and help your club.

The Netherlands is**Set to Abandon the Morse Test Next Year.**

Rob van den Ent, PE9PE, reports that the Netherlands' national amateur radio convention took place October 12 & 13. He says that the Dutch radio regulatory authority used the occasion to announce that if, as expected, Morse code is lifted as a mandatory requirement for an HF licence at next year's World Radio Conference, the authority would immediately eliminate the Morse code test in the Netherlands. At the same time, current VHF licensees would get direct access to the HF bands without further examinations.

From the ARRL Letter, Vol. 21, No. 47
December 6, 2002

NORTH KOREA ASKS P5/4L4FN TO QRT

The only Amateur Radio station active from North Korea has been ordered off the air. Ed Giorgadze, 4L4FN, had been operating for the past year as P5/4L4FN from Pyongyang. The ARRL subsequently accredited SSB and RTTY operation of P5/4L4FN for DXCC.

QSL manager Bruce Paige, KK5DO, Paige said that on Friday, November 22, Giorgadze was called into a meeting with the "Radio Regulation Board" without any explanation, and he was politely asked to quit all transmissions and pack all his radio equipment. "Saturday, he spent all day on the roof disassembling his antennas and packing boxes." Paige said North Korean government officials later came by and sealed all of the boxes. When Giorgadze leaves North Korea on December 10 for two weeks of vacation, "he is to take everything with him out of the country," Paige indicated.

Giorgadze had tried for more than two years to obtain permission to operate Amateur Radio in North Korea and finally was given the OK in 2001 to bring an ICOM IC-706MkIIIG into the country. In the intervening months, he's been slowly upgrading his antenna system. He's made more than 16,000 contacts during his stint in North Korea, and earlier this year attained the first DXCC ever from that country.

Paige said the P5/4L4FN logs should be 100% complete on his Web site
<http://www.amsatnet.com/>
(click on "P5 North Korea").

Giorgadze, who's from of the Republic of Georgia, had been operating on the basis of oral permission from North Korean authorities, but ARRL Membership Services Manager Wayne Mills, N7NG, said the League was satisfied on the basis of written information submitted that the P5/4L4FN operation conformed with DXCC rules and cards would continue be accepted for credit.

Radio History

Source - "The Hinge of Fate"
by Winston S. Churchill

During the winter of 1941 British Intelligence suspected the Germans were using a new radar apparatus for giving the direction and range of planes to their anti-air-craft guns. This apparatus was believed to look like a large bowl-shaped electric heater. Intelligence found out that a chain of stations stretched along the northern coast of Europe, and that one of them, probably containing the new equipment, was established on Cap d'Antifer, not far from Havre. On December 3, 1941, a squadron leader of the Photographic Reconnaissance Unit happened to visit Britain's Intelligence Centre and learned of these suspicions. On his own initiative he flew over next day and spotted it. A photograph he took during a sortie on December 5 showed Britain's scientists that it was exactly what they expected. Although it was at the top of a four-hundred-foot cliff, a shelving beach nearby provided a possible landing-place, and a Commando raid was planned accordingly. On the night of February 27, 1942, a Commando raid on Bruneval captured vital portions of a key piece of equipment in the German radar defences and gathered information which greatly helped the air offensive. In the snow and darkness a detachment of paratroops dropped at midnight behind the German station on the cliff summit and held the defenders at bay. With them went a carefully briefed party of sappers and an R.A.F. radio mechanic with instructions to remove as much of the equipment as they could, sketch and photograph the rest, and if possible capture one of the German operators. In all this they succeeded, although a hitch in the time-table cut down their working period from half an hour to barely ten minutes. Most of the equipment was found, dismantled under fire, and carried to the beach

party off.

Supplemented by a rapidly increasing network of agents who were specially briefed in radar intelligence, and by friendly neutrals who brought back information from the occupied countries knowledge of the German defences grew all through 1942. During that year Belgians provided about eighty per cent of all "agent" information on this subject, including a vital map, stolen from the German Officer Commanding searchlight and radar equipment for the more northerly of the two sectors of the German night-fighter line in Belgium. This map, in conjunction with other information, enabled Britain's experts to unravel the system of the German air defence. By the end of 1942 the British knew not only how the hostile system worked, but how to cope with it.

Towards the end of 1942 Professor Lindemann, then Lord Cherwell, told Churchill that the Germans had fitted their night fighters with a new kind of radar set. Little was known about it except that it was called "Lichtenstein" and was designed for hunting bombers. More had to be found out about it before the start of the air offensive. On the night of December 2, 1942, an aircraft of 192 Squadron was presented as a decoy. It was attacked many times by an enemy night fighter radiating the Lichtenstein transmissions. Nearly all the crew were hit. The special operator listening to the radiations was severely wounded in the head, but continued to observe with accuracy. The wireless operator, though badly injured, was parachuted out of the aircraft over Ramsgate, and survived with the precious observations. The rest of the crew flew the plane out to sea and alighted on the water because the machine was too badly damaged to land on an airfield. They were rescued by a boat from Deal. The gap in the British Allies' knowledge of the German night defences was closed.



From the ARRL Letter, Vol. 21, No. 47,
December 6, 2002

FIRST AMATEUR TRANSATLANTIC HF DIGITAL VOICE QSO REPORTED

Radio communication pioneers Ten-Tec and Thales have announced that they've used an Amateur Radio linkup to span the Atlantic on HF digital voice for the first time. Ten-Tec's Doug Smith, KF6DX, and Thales' Didier Chulot, F5MJN, successfully transmitted and received HF digital speech signals November 22 between Paris, France, and Ten-Tec's Sevierville, Tennessee, headquarters.

"We view this as a significant accomplishment," said Smith. "Amateur Radio has long been at the forefront of technological development. It's nice to be able to show that our legacy is alive and well." Tests are being conducted under the auspices of ARRL's Digital Voice Working Group, which Smith chairs. A written report on the tests is due in January.

Calling it "a major breakthrough," a Ten-Tec news release said the two amateur stations "demonstrated the advantages of digital audio during the conversation, including noise-free, FM-like reception and the potential for simultaneous voice and data." The feat was accomplished on 15 meters using Ten-Tec transceivers and Thales Communications Skywave 2000 digital audio software. Operating as F8KGG, Chulot spoke with Smith for several minutes over the HF digital link, operating within a 3-kHz bandwidth.

Smith said he and F5MJN used unmodified Ten-Tec transceivers in upper-sideband mode, although AM or FM mode also would work. No additional hardware was required beyond the cables connecting the transceiver and the microphone to the PC sound card. Smith said audio quality was roughly the same as a conventional telephone circuit. An Amateur Radio version of the Thales system is expected to appear on the market early next year. "At this stage, the system is experimental-only for ham radio, but it looks like it's going to take off,"

In terms of Amateur Radio, Alinco was the first manufacturer to come out with a digital voice option for some of its transceivers. ICOM debuted its D-Star digital "concept radio" system last May at the Dayton Hamvention--where Smith chaired the Digital Voice Forum--and demonstrated it at the ARRL-TAPR Digital Communications Conference in September. The unit, which operates on 1.2 GHz, was scheduled to hit the ham radio market this fall.

Technical details of the Thales system will appear in an article "International Digital Audio Broadcasting Standards: Voice Coding and Amateur Radio Applications" in the January/February issue of QEX, which he edits. The article is available on the ARRL Web site <<http://www.arrl.org/tis/info/pdf/x0301049.pdf>>. He also has authored two articles on digital voice in QST: "Digital Voice: The Next New Mode?" <<http://www.arrl.org/tis/info/pdf/0201028.pdf>> in the January 2002 issue, and "Digital Voice: An Update and Forecast" <<http://www.arrl.org/tis/info/pdf/0202038.pdf>> in the February 2002 issue.

Additional images and background are available on the TAPR Web site <<http://www.tapr.org>>. Look for the Digital Voice Forum page and the presentation by Cédric Demeure.--Ten-Tec news release; Doug Smith, KF6DX



Answer to puzzle on page 2

The correct answer is: Amateurs were given all the spectrum 200 meters and down.

This is all the spectrum between the upper part of the present AM broadcast band up to UHF. This was done because conventional thinking at the time said that only low frequencies were of any use for communication, so amateurs were given everything else. How wrong they were.

From the ARRL Letter, Vol. 21, No. 43,
November 1, 2002

Indian pirates persist

Sahrudin, VU2SDN, the president of the Amateur Radio Society of India, reports a spate of pirate operations using call signs VU4A, VU7A and similar other call signs continues. These have all been pirates, he says. A blanket ban exists on operations from Andaman, Nicobar and Lakshadweep islands, so VU4 and VU7-prefix call signs have not been assigned for 10 years, although the brief 1993 VU2JPS from the Andaman Islands was valid. Sahrudin reported last April that India's QSL Bureau was receiving many QSL requests for contacts apparently made by bootleggers using VU call signs. Sahrudin has explained that call signs that begin with VU2 followed by two or three letters or with VU3 followed by three letters are the only valid call signs for India.

--The Daily DX

ROBERTS C9950 Dual Speed

Programmable Cassette Recorder

The new Roberts Recorder Roberts Programmable Cassette recorder which is advertised as being of special interest to Radio enthusiasts has been released.

The recorder features, dual record speed, 6 separate timed recordings, Voice activated recording, Timed voice activated recording, remote switching of other equipment.

From: press@radio-scanner.co.uk

RAC's web site is www.rac.ca

From the ARRL Letter, Vol. 21, No. 24,
June 14, 2002

2003 ARRL National Convention will be held June 20-22, 2003, in Arlington, Texas, coinciding with the next Ham-Com.

<http://www.hamcom.org>

(UK) Government's secret Celldar project will allow surveillance of anyone, at any time and anywhere there is a phone signal

From: press@radio-scanner.co.uk

Halifax Amateur Radio Club Minutes of the Regular Monthly Meeting November 20, 2002



The November 20, 2002 meeting of the Halifax Amateur Radio Club was called to order by the president at 1935 in the Multipurpose room of the Bloomfield School building.

Executive at the desk were:

President VE1MR,

1st Vice Pres. VE1NN,

Treasurer Jeremy, VE1JHF

Silent keys Maurice Ricard, VE1GI.

Members and guests did self introductions. We had one guest, Laura Hatcher

It was moved by Howard VE1DHD, seconded by John VE1DD to approve the minutes of the October 2002 HARC general meeting as printed in the Reflector Motion carried.

Executive reports:

Treasurer's report: Jeremy, VE1JHF, reported that the current bank balance stands at \$2,862.16.

There is \$208.68 in outstanding checks.

A motion to accept the Treasurer's report as presented was made by Doug VE1LDL, seconded by Nigel, VE1NPS. Motion carried.

President Bill, VE1MR announced that in the ARRL Field Day 2002 VE1FO is first in Canada in the 2A category, 2nd in Canada over all (Durham had 11,960 points; we had 9832 points) and 50th of all Field Day submissions.

The Club has received an e-mail from Ian Snow VA3QT congratulating us on our Field Day 2002 achievement.

First VP David, VE1NN, reported that the ham breakfast would take place February 22 as GOTA is scheduled for Feb. 15.

Individuals may borrow call sign VE1RAC for short term (event) use. Contact Bill Gillis, VE1WG, to arrange to use VE1RAC.

In the absence of our Second VP, Murray, VE1MMD, the door prize (penlight & knife in a presentation case) is not on hand but the winner can collect it from Murray when his cold has improved.

Committee Reports

Search and Rescue - David, VE1AJP, reported that the search team went on a search in Dartmouth where the lost man was found deceased.

There has been lots of activity putting the finishing touches on the search team's new command vehicle.

EMO activity (BE PREPARED) - David, VE1AJP, reported that in the past month:

- the Aberdeen Hospital was evacuated

- the recent power failure proved that Dalplex's emergency power is deficient.

Old Business - There was no old business

New Business & Announcements

Christmas party - Betty, VE1BSW reminded members about the HARC Christmas party Dec. 18 at the Tan Family Restaurant. See the HARC Reflector for details. Betty needs numbers of people attending.

Rick Gardner, VE1RGG, presented a plaque to the Club on behalf of the MS Bike Tour. We have helped since 1993. This year \$325,000 was raised. (URL is www.mssociety.ca) Rick noted that Bill, VE1MR received a plaque for individual service contribution to the MS Bike-Tour at our August pizza night. (Bill has been the voice attending the portable repeater for the past several years.)

RAC: Howard, VE1DHD, spoke, explaining why he resigned a Director of RAC and about the problems which hamper RAC (structural and attitudinal)

Howard took on his responsibilities as a RAC Director in May traveling and speaking with Atlantic Amateurs on behalf of RAC.

Some of the points he mentioned are:

- The RAC organizational structure is a bad design and needs to be "fixed"
- The President & vice-president of RAC have no voice; i.e. they do not have a vote

- We (Canadian amateur radio operators) need a strong voice in Ottawa.

- RAC represents only 15% of Canadian hams

- there are 1 or 2 parochial (*See Secretary's note*) individuals, members of the current RAC board, who appear to consider that hijacking meetings, harassment of the other RAC executive members and non-cooperation to be preferred tools to accomplish their own ends.

- TCA (the magazine) does not function at arms length from RAC as it is supposed to

- RAC should not have to die to be reborn/remade

Howard intends to inform all Canadian Club presidents of the situation by letter and will try to get the letter published in TCA

The door prize was won by George Snow, VE1CAW.

The 50/50 draw was won by Lynn Bowser, VE1ENT.

The meeting was adjourned on a motion by Howard, VE1DHD.

Respectfully submitted by
Lynn Bowser, VE1ENT,
Acting Secretary, H.A.R.C.

(*Secretary/editor's note: Dictionary definition -parochial "Confined to a narrow area"... Also see intransigent, intractable, uncooperative, not-a-team-player, dog-in-the-manger ... you get the picture*)

Do you have a radio-oriented story, question, answer, article, notice, picture or letter to the editor that you would like to share by having it published in the HARC Reflector?

Get them to the HARC Reflector editor, Lynn Bowser, VE1ENT (e-mail ve1ent@rac.ca)

From the ARRL Letter, Vol. 21, No. 50
December 27, 2002

Grote Reber, ex-W9GFZ, **one of the earliest pioneers of radio astronomy**, died December 20, 2002 in Tasmania, where he had been living since 1954. He was 90. Reber was the first person to build a radio telescope dedicated to astronomy, and his self-financed experiments laid the foundation for today's advanced radio astronomy facilities.

"All radio astronomers who have followed him owe Grote Reber a deep debt for his pioneering work," said National Radio Astronomy Observatory (NRAO) Director Fred Lo. Reber was the first to systematically study the sky by observing something other than visible light. "This gave astronomy a whole new view of the universe," Lo said.

As a radio engineer and avid Amateur Radio operator in Wheaton, Illinois, in the 1930s, Reber was inspired by Karl Jansky's 1932 discovery of natural radio emissions from outer space. The concept of viewing space via radio signals presented Reber—who had worked his share of terrestrial DX—with a whole new challenge that he attacked with vigor.

Reber concluded that what he needed was a parabolic dish antenna, and in 1937 he constructed a nine-meter (31.4 feet) dish antenna in his backyard. The strange contraption attracted the attention of curious neighbors and became somewhat of a minor tourist attraction, he later recalled.

Using electronics he designed and built that pushed the technical capabilities of the era, Reber succeeded in detecting "cosmic static" in 1939. In 1941, Reber produced the first radio map of the sky, based on a series of systematic observations.

Reber's research results were published in a number of prestigious technical journals. He also received numerous honors normally reserved for scientists professionally trained in astronomy. Ohio State University conferred an honorary doctorate on Reber in 1962.

In a 1977 paper, "Endless, Boundless, Stable Universe"

<http://personal.nbnet.nb.ca/galaxy/G_Reber.html>

Reber concluded: "Time is merely a sequence of events. There is no beginning nor ending. The material universe extends beyond the greatest distances we can observe optically or by radio means. It is boundless."

Reber's amateur call sign, W9GFZ, now is held by the NRAO Amateur Radio Club in Socorro, New Mexico. --NRAO news release by Dave Finley, N1IRZ; Tom Crowley, KT4XN

From the ARRL Letter, Vol. 21, # 41

October 18, 2002

ARRL ASKS FCC TO DENY US USE OF EUROPEAN/UK FRS- TYPE RADIOS ON 70 cm

The ARRL has asked the FCC to deny a petition, filed by a Virginia amateur, that would set aside eight channels in the 70-cm band on which visitors from Europe and the United Kingdom would be permitted to use their Personal Mobile Radio (PMR 446) transceivers while in the US. PMR 446 is similar to the US Family Radio Service (FRS), which uses frequencies in the 462-467 MHz range.

"ARRL is not unsympathetic to the compatibility concerns of international travelers, but there are far less problematic solutions. The ARRL recommended that European and UK visitors purchase FRS transceivers to use during US visits.

The Petition asks the FCC to amend its Amateur Service "and/or" Family Radio Service rules to allow "visiting/transient/tourist, non-amateur, non-United States resident foreign nationals" unlicensed access to certain frequencies between 446.0 and 446.1 MHz at up to 0.5 watt PEP output.

The ARRL demurred. A rule change permitting non-amateurs to operate unlicensed transmitters on amateur bands, it said, would be contrary to the fundamental regulatory structure of the Amateur Service, the Commu-

nications Act of 1934 and the International Radio Regulations.

The ARRL band plan for 70 cm designates 446.0 MHz as a national calling channel. Other frequencies in the segment are for simplex or repeater use. In the US, government radiolocation services are primary and Amateur Radio is secondary on that portion of the 70-cm band.

"This Petition reveals the problems that arise from the failure to harmonize allocations internationally," the ARRL noted. "Had the United States and CEPT [the European Conference of Postal and Telecommunications Administrations] taken steps to harmonize FRS channels internationally prior to creating the FRS in the first place, the problems reasonably noted by the petitioner might have been avoided."

The Petition, RM-10521, and filed comments are available via the FCC's Electronic Comment Filing System (ECFS). Click on "Search for Filed Comments" and enter "RM-10521" (the ECFS is case-sensitive) in the "Proceeding" field. The comment period has expired.

Conference rejects Tetra system:

The UK's fire and ambulance services are due to begin specifying nationwide digital radio networks within the next month. But a recent conference has highlighted shortcomings of Terrestrial Trunked Radio (Tetra), a digital radio technology already being implemented by the UK police.

The Tetrapol Users Club Conference in Berlin (October, 2002) claimed that Tetra is unsuitable for the needs of national emergency services networks. No nationwide networks have successfully been implemented using the technology, compared to over 64 countries using Tetrapol.

From: press@radio-scanner.co.uk

*Why is it that to **stop** Windows 98,*

From the ARRL Letter, Vol. 21, No. 43, November 1, 2002

ARRL RESURRECTS

FREQUENCY MEASURING TEST

The Frequency Measuring Test (FMT)--an ARRL staple for nearly 50 years--will return in early November. A FMT transmission will replace the W1AW SSB bulletin on Nov. 7, 0245 UTC (Wednesday, November 6, in US time zones). The resurrected FMT will kick off a series of measuring tests.

"These tests will exercise the capabilities of hams to measure important operating parameters, improve their understanding of complex radios and give them a better mental picture of their transmitted signals," Contributing Editor Ward Silver, N0AX, said in an October 2002 QST article describing the art and science of frequency measurement. "The goal is a more technically aware amateur confident of compliance with FCC regulations." Silver's article, "The ARRL Frequency Measuring Tests," appears on page 51 of the October issue.

Today's amateurs tend to take for granted the accuracy of their transceiver's frequency readout. But, as Silver notes in his article, relying simply on a transceiver's digital readouts could mean part of your signal is outside the band edge--in violation of FCC Part 97 rules. Transceiver or receiver readout accuracy "depends entirely on the quality of the receiver's master oscillator," he points out in QST.

Increasing technical quality of amateur gear was one of the primary reasons for the decline and fall of FMTs in 1980. In prior decades, however, thousands of amateurs took part in the FMTs, and participation was required of ARRL Official Observer and Official Relay System stations. The first FMT, held in October 1931, employed three transmitting stations--W1XP at Massachusetts Institute of Technology, W9XAN at Elgin Observatory in Illinois and W6XK at Don Lee Broadcasting System in Los Angeles--and drew more than 200 measurement reports.

From the ARRL Letter, Vol. 21, No. 47, December 6, 2002

RS-20 is newest Russian Amateur Radio satellite payload:

On November 28, the Russian Space Agency launched the Algerian Al-Sat-1 satellite along with a new Russian bird known as Mozhayets--a navigational and scientific satellite. One of its experimental payloads is an Amateur Radio telemetry beacon that has been christened RS-20. Mozhayets orbits at an altitude of 720 km, completing a turn around Earth every 99 minutes. The Keplerian elements for RS-20 are: 1 2 7 5 6 0 U 0 2 0 5 4 B 02332.86497891 -.00019965 00000-0 -47472-2 0 37; 2 27560 98.2411 217.5728 0044302 75.5447 285.0613 14.53325574 86. RS-20 is transmitting CW telemetry on 145.818 and 435.319 MHz. According to information provided by Alexander Zaitzev, RW3DZ, each telemetry frame begins and ends with the beacon call sign, RS-20.

E-mail reports are welcomed at plis@kaluga.ru.

For your post Christmas/New Year's season consideration

Chocolate is a Vegetable

Chocolate is derived from cocoa beans.

Bean = vegetable.

Sugar is derived from either sugar cane or sugar BEETS.



Both of them are plants, in the vegetable category. Thus, chocolate is a vegetable.

To go one step further, chocolate candy bars also contain milk, which is dairy. So candy bars are a health food.

Chocolate-covered raisins, cherries, orange slices and strawberries all count as fruit, so eat as many as you want.

Remember: "STRESSED" spelled backward is "DESSERTS"

From the ARRL Letter, Vol. 22, No. 01 January 3, 2003

The International Amateur Radio Union (IARU) has announced the successful presentation of the **Amateur Radio Administration Course (ARAC) in Nairobi, Kenya**. The course, conducted jointly by IARU and the African Advanced Level Telecommunications Institute (AFRALTI), was taught Dec. 9-13, 2002, to a class of 22 telecommunications officials from English-speaking African countries. Support for the course was provided by the International Telecommunication Union Telecommunication Development Bureau (ITU-D), the African Telecommunications Union (ATU) and the Communications Commission of Kenya (CCK). Students were from administrations and telecommunications operators from Ghana, Kenya, Sudan and Zambia. Presenters were Paul Rinaldo, W4RI, for IARU; Mohamed K. Noorani of AFRALTI; & Gideon Mwakatobe of ATU. AFRALTI Director Edward Mallango participated in the opening ceremony. ATU Secretary-Gen. Jan Mutai officiated at the closing ceremony. Amateur Radio Society of Kenya (ARSK) Chairman E H M (Ted) Alleyne, 5Z4NU, set up an HF station at the training site. "The presentation of the course in Nairobi was made possible by a strong sense of partnership that exists between ITU, ATU, and IARU," said IARU Secretary David Sumner, K1ZZ. "IARU President Larry Price, W4RA, has assigned a high priority to the development of Amateur Radio in Africa. We are most gratified that ITU-D Director Hamadoun Touré as well as ATU Secretary General Mutai and his colleagues in Nairobi share our conviction that Amateur Radio can contribute to human resource development for the improvement of telecommunications in Africa." The course included instruction in subjects such as the ITU, Radio Regulations, spectrum management, the IARU, domestic and international regulations, Amateur Radio operations & technology, disaster communications & the Amateur-Satellite Service.

From the ARRL Letter, Vol. 21, No. 43,
November 1, 2002

NTIA STUDY IS BAD NEWS FOR SAVI 425-435 MHz PROPOSALS

A National Telecommunications and Information Administration (NTIA) study supports the ARRL's position that the FCC would be making a mistake to permit SAVI Technology to deploy **RF identification (RFID) tag devices at 433 MHz** at much greater duty cycles than current Part 15 rules permit for such devices. RFID tags are used for tracking shipments and packages, among other applications.

"NTIA has grave concerns about the Commission's proposal operation of RFID tags in the band 425-435 MHz at increased power levels and increased duty factor and data transmission by remote control devices," wrote Fredrick R. Wentland, the NTIA's acting associate administrator in the Office of Spectrum Management. "Given the likelihood of interference to critical government radars, NTIA is unable to support the Commission's proposal."

ARRL Chief Executive Officer David Sumner, K1ZZ, said the NTIA staff study bears out what the League has been saying all along. "RFID tags represent a significant source of potential interference to sensitive receivers," and that use of the 425-435 MHz band would be incompatible with ongoing requirements of incumbent services--military and amateur. "We trust that the FCC will now terminate this portion of the proceeding and that RFID proponents will focus their attention on other, more appropriate parts of the radio spectrum."

The NTIA recommended that the FCC "explore other bands that might be able to accommodate the technology without causing unacceptable interference to critical incumbent users. Among the suggestions was 450 to 470 MHz, which provides nearly the same propagation characteristics as the band SAVI picked. The NTIA also noted that 902 to 928 MHz--an amateur allocation--or 2400 to 2483.5 MHz--which includes part of an amateur microwave allocation--might ac-

as spread spectrum devices.

Accompanying Wentland's letter was a six-page NTIA technical analysis. The study asserts that the FCC's proposal to permit increased duty cycles and field strengths for the 425-435 MHz RFID emitters "would result in received power levels in excess of the required interference-to-noise ratio" that could adversely affect "critical government radar systems."

SAVI this week filed its own detailed study that rebuts the NTIA's position. SAVI suggested it would be willing to have the FCC limit the available band for "advanced RFID" products to 433 to 435 MHz, lower the peak-to-average ratio to 14 dB, strengthen the definition of RFID products to add language forbidding voice transmissions and limit use of RFIDs to "commercial or industrial locations."

More than 130 amateurs filed comments in opposition to SAVI Technology's RFID tags proposal. A copy of the NTIA letter and study and SAVI's rebuttal study in ET Docket 01-278 are available via the FCC Electronic Comment Filing System page <<http://www.fcc.gov/e-file/ecfs.html>>. Click on "Search for Filed Comments" and enter "01-278" in the "Proceeding" field.

HARC Tube Bank Anyone looking for a particular tube or tubes should contact the Tube Bank Managers Amy Cohoon, Ashley Cohoon or Kim Carter by e-mail at **harctube@hotmail.com**

or nstn2110@fox.nstn.ca
or snail mail:

99 Hyson Point Rd.

Mahone Bay, N.S. B0J 2E0

There is a nominal charge if we can supply the tube wanted.

Shipping/mailing is extra..

The easiest way to find something lost around the house is to

World Radiocommunication
Conference 2003 will take place in
Geneva, Switzerland,
from June 9 until July 4, 2003.

From the ARRL Letter, Vol. 21, No. 50
December 27, 2002

German Amateur Radio payload reaches orbit: Oliver Amend, DG6BCE, and the German Amateur Radio Association report that the RUBIN-2 scientific satellite carrying the SAFIR-M Amateur Radio payload was successfully launched December 20 (1700 UTC) from Russia's Baikonur Cosmodrome. As of December 22, he had not yet established contact with the satellite. The call sign, DPOAIS, stands for "Amateur Radio in Schools." Designed as a store-and-forward system for APRS-based messages, SAFIR-M is a project of the Working Group for Amateur Radio and Telecommunications in Schools <<http://www.aatis.de>> and developed in cooperation with the University of Applied Sciences in Pforzheim, Germany. "The main purpose of the satellite is to give students easy access to space communications," Amend says. He notes the satellite will be operational only when RUBIN-2 is in sunlight, so usable passes over Europe will be during the early morning hours and only for up to about five minutes with very low antenna elevations. Now in an approximately 650-km orbit at 65 degree inclination, SAFIR-M has a 1200-baud packet uplink at 437.275 MHz and a 9600-baud packet downlink on 145.825 MHz. There's also an optional voice message beacon on 2 meters. Amend welcomes reports with date and time (UTC) and position (WGS-84 or grid square) via e-mail <dg6bce@aatis.de>. The correct NORAD identifier for two-line Keplerian elements appears to be 27607. More information is available in German on the SAFIR-M Web site <<http://amend.gmxhome.de>>.

See the ARRL Contest Branch page,
<http://www.arrl.org/contests/>
And <http://www.hornucopia.com/>

A Ham's Night Before Christmas
 Courtesy of John, VE1CDD
(A little late but too good -ed)

'Twas the night before Christmas,
 And all through two-meters,
 Not a signal was keying up
 Any repeaters.

The antennas reached up
 From the tower, quite high,
 To catch the weak signals
 That bounced from the sky.

The children, Tech-Pluses,
 Took their HT's to bed,
 And dreamed of the day
 They'd be Extras, instead.

Mom put on her headphones,
 I plugged in the key,
 And we tuned 40 meters
 For that rare ZK3.

When the meter was pegged
 by a signal with power.
 It smoked a small diode,
 and, I swear, shook the tower.

Mom yanked off her phones,
 And with all she could muster
 Logged a spot of the signal
 On the DX PacketCluster,

While I ran to the window
 And peered up at the sky,
 To see what could generate
 RF that high.

It was way in the distance,
 But the moon made it gleam -
 A flying sleigh, with an
 Eight element beam,

And a little old driver
 who looked slightly mean.
 So I thought for a moment,
 That it might be Wayne Green.



But no, it was Santa,
 The Santa of Hams.
 On a mission, this Christmas
 To clean up the bands.
 He circled the tower,
 Then stopped in his track,

And he slid down the coax
 Right into the shack.

While Mom and I hid
 Behind stacks of CQ,
 This Santa of hamming
 Knew just what to do.

He cleared off the shack desk
 Of paper and parts,
 And filled out all my late QSLs
 For a start.

He ran copper braid,
 Took a steel rod and pounded
 It into the earth, till
 The station was grounded.

He tightened loose fittings,
 Resoldered connections,
 Cranked down modulation,
 Installed lightning protection.

He neutralized tubes
 In my linear amp...
 (Never worked right before --
 Now it works like a champ).

A new, low-pass filter
 Cleaned up the TV.
 He corrected the settings
 In my TNC.

He repaired the computer
 That would not compute,
 And he backed up the hard drive
 And got it to boot.

Then, he reached really deep
 In the bag that he brought,
 And he pulled out a big box.
 "A new rig?" I thought!

"A new Kenwood? An Icom?
 A Yaesu, for me?!"
 (If he thought I'd been bad
 it might be QRP!)

Yes! The Ultimate Station!
 How could I deserve this?
 Could it be all those hours
 that I worked Public Service?

He hooked it all up
 And in record time, quickly
 Worked 100 countries,
 All down on 160.

I should have been happy,
 It was my call he sent.
 But the cards and the postage
 Will cost two month's rent!



And left a card by the key:
 "To Dan, from Santa Claus.
 Seventy-Three."

Then he grabbed his HT,
 Looked me straight in the eye,
 Punched a code on the pad,
 And was gone - no good bye.

I ran back to the station,
 And the pile-up was big,
 But a card from St. Nick
 Would be worth my new rig.

Oh, too late, for his final
 came over the air.
 It was copied all over.
 It was heard everywhere.

The Ham's Santa exclaimed
 What a ham might expect,
 "Merry Christmas to all,
 And to all, good DX."

Credited to Dan W.
 Dooley WB5TKA



From the ARRL Letter, Vol. 22, No. 01
 January 3, 2003

Experimental operations on 5 MHz continue on a very limited basis in the United Kingdom and in Canada. In Newfoundland, the Marconi Radio Club's VO1MRC has been operating under experimental authority from Industry Canada and an endorsement from Radio Amateurs of Canada to conduct experiments on 5 MHz. On December 21, VO1MRC completed a cross-band (5 MHz/7 MHz) CW contact with VK7RO in Tasmania.

New Trident 6 Mtr 'DX Buster' Yagi Trident

These antennas are designed for the serious 6 metre Dx'er. They are Computer optimized for both performance and survival in the worst of the UK's weather. Using a riveted construction the antennas are extremely light yet strong. The yagis are pre-assembled so that they can be put together quickly without the need for measurement on site.

From: press@radio-scanner.co.uk